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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,601	09/12/2003	R. Donald Grafton	A8130.0153/P153	7642
24998	7590	09/21/2006	EXAMINER	
DICKSTEIN SHAPIRO LLP 1825 EYE STREET NW Washington, DC 20006-5403			POUS, NATALIE R	
			ART UNIT	PAPER NUMBER
			3731	

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/660,601

Applicant(s)

GRAFTON ET AL.

Examiner

Natalie Pous

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/14/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119(e) or 120 as follows:

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application, Application No. 60/409,929 fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application. Claims 5, 6, 9, 10, 14, 17 and 18 including the limitations wherein the slot terminates distally in a transverse suture hole within the anchor body, wherein the body has a constant outer diameter and a stepped tapered inner diameter, and wherein the thread has a crest that tapers from wide to narrow from the proximal end to the distal end of the body are not supported by application provisional application No. 60/409, 929 and thus, the priority date for these limitations is current application filing date 9/12/03.

### ***Claim Objections***

Claims 4-6 are objected to because of the following informalities: they claim improper dependence. It is inferred that the correct dependence is as follows: claim 4 depends from claim 3, claim 5 depends from claim 4, and claim 6 depends from claim 5. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 3, 7, 8, 11 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Dreyfuss (US 6652563)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding Claim 1, Dreyfuss teaches a suture anchor, comprising: an anchor body having a proximal end and a distal end; and a suture loop disposed completely within the anchor body (Claim 1).

Regarding Claim 3, Dreyfuss teaches the suture anchor of claim 1, wherein the anchor body is provided with a drive socket (120) at the proximal end.

Regarding Claim 7, Dreyfuss teaches the suture anchor of claim 1, further comprising a strand of a knot tying suture (138) threaded through the suture loop.

Regarding Claim 8, Dreyfuss teaches the suture anchor of claim 1, wherein the anchor body is threaded from the proximal end to the distal end (fig. 7).

Regarding Claim 11, Dreyfuss teaches an insert-molded suture anchor, comprising: an anchor body (210) having a longitudinal axis, a proximal end and a distal end, the anchor body being threaded (216) between the proximal end and the distal end; a drive socket (210) provided at the proximal end; and a suture loop (222)

Art Unit: 3731

disposed completely within the anchor body, the suture loop being insert-molded into the anchor body (Column 1, proximate lines 39-42).

Regarding Claim 15, Dreyfuss teaches the insert-molded suture anchor of claim 11, further comprising a strand of a knot tying suture (138) threaded through the suture loop.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 9-10, 14 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dreyfuss in view of Grafton et al. (US 6319270).

Dreyfuss teaches all limitations of previous dependent claims 1 and 11 as previously described, but fails to teach wherein the anchor body has a constant outer diameter and a stepped tapered inner diameter and wherein the anchor thread extending between the proximal end and the distal end of the body has a crest which

Art Unit: 3731

tapers from wide to narrow from the proximal end to the distal end of the body. Grafton teaches a suture anchor wherein the anchor body has a constant outer diameter and a stepped tapered inner diameter and wherein the anchor thread extending between the proximal end and the distal end of the body has a crest which tapers from wide to narrow from the proximal end to the distal end of the body in order to provide an increased percentage of thread surface area for each turn of the anchor, thus providing increased pull-out strength, and a decreased tendency for back-out (Column 2, proximate lines 1-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Dreyfuss as taught by Grafton in order to provide an increased percentage of thread surface area for each turn of the anchor, thus providing increased pull-out strength, and a decreased tendency for back-out.

Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dreyfuss in view of Bidwell (US 74489).

Dreyfuss teaches all limitations of previous dependent claims 1 and 11 as previously described, but fails to teach wherein the anchor body has a constant outer diameter and a tapered inner diameter. Bidwell teaches a screw wherein the anchor body has a constant outer diameter and a stepped tapered inner diameter in order to provide an entrance point at the distal end while maintaining strength at this region. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Dreyfuss with a constant outer diameter and a tapered



Art Unit: 3731

inner diameter in order to provide an entrance point at the distal end while maintaining strength at this region.

Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dreyfuss as a matter of design choice. Dreyfuss teaches all limitations of preceding dependent claims 1 and 11 as previously described, but fails to teach wherein the suture anchor has a predetermined length and wherein the suture loop is recessed from the proximal end of the anchor body by about one third of the predetermined length. It would have been an obvious matter of design choice to provide the suture loop recessed from the proximal end of the anchor body by about one third of the length since applicant has not disclosed that doing so provides any advantage or serves any particular purpose, and it appears that the configuration of Dreyfuss performs the task of providing a recessed loop equally well as the disclosed application. Further, it has been held that discovering the optimum value of a result effective variable involves only routines skill in the art. In re Boesch, 617, F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 4, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dreyfuss in view of Jackson. Dreyfuss teaches all limitations of preceding dependent claims 1, 3 and 11 as previously described and further teaches wherein the anchor body is threaded, but fails to teach wherein the drive socket has at least one slot. Jackson teaches a device with a threaded body for insertion into bone comprising a drive socket (18) that has at least one slot (23) in order to accommodate protrusions on the driver to aid in securing the device to tissue. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of



Art Unit: 3731

Dreyfuss as taught by Jackson in order to accommodate protrusions on the driver to aid in securing the device to tissue.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Dreyfuss and Jackson as applied to claims 1, 3 and 4 above, and further in view of Schmieding et al. (US 6214031). The combination of Dreyfuss and Jackson teach all limitations of claims 1, 3 and 4 as described previously, but fails to teach wherein the slot terminates distally in a suture hole transverse to a longitudinal axis of the anchor body provided within the anchor body. Schmieding teaches a suture anchor comprising slot (14) that terminates distally in a suture hole (12) transverse to a longitudinal axis of the anchor body provided within the anchor body (2) in order to accommodate the suture within the driver tool when delivering the device. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Dreyfuss and Jackson as taught by Schmieding in order to accommodate the suture within the driver tool when delivering the device.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie Pous whose telephone number is (571) 272-6140. The examiner can normally be reached on Monday-Friday 8:00am-5:30pm, off every 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on (571) 272-4963. The fax phone

Art Unit: 3731

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NRP  
9/6/06



(JACKIE) TAN-UYEN HO  
PRIMARY EXAMINER

9/8/06